

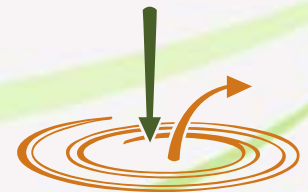


# Food for Thought: Compost Trends in the Southeast

Miriam Zimms, LEED AP®

US Composting Council Conference

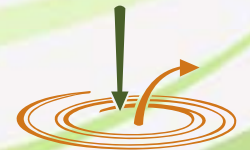
January 29, 2013



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# Presentation Objectives

- Drivers for Local Communities & States
- Present two (2) local programs
  1. Feasibility and planning
  2. Pilot and implementation
- State policy changes that allowed for growth



# Increase Recovery Goals

Total Waste Stream



Commercial Waste Stream



- High state and local recycling goals
- Organics = 13 – 23% of the waste stream and rising

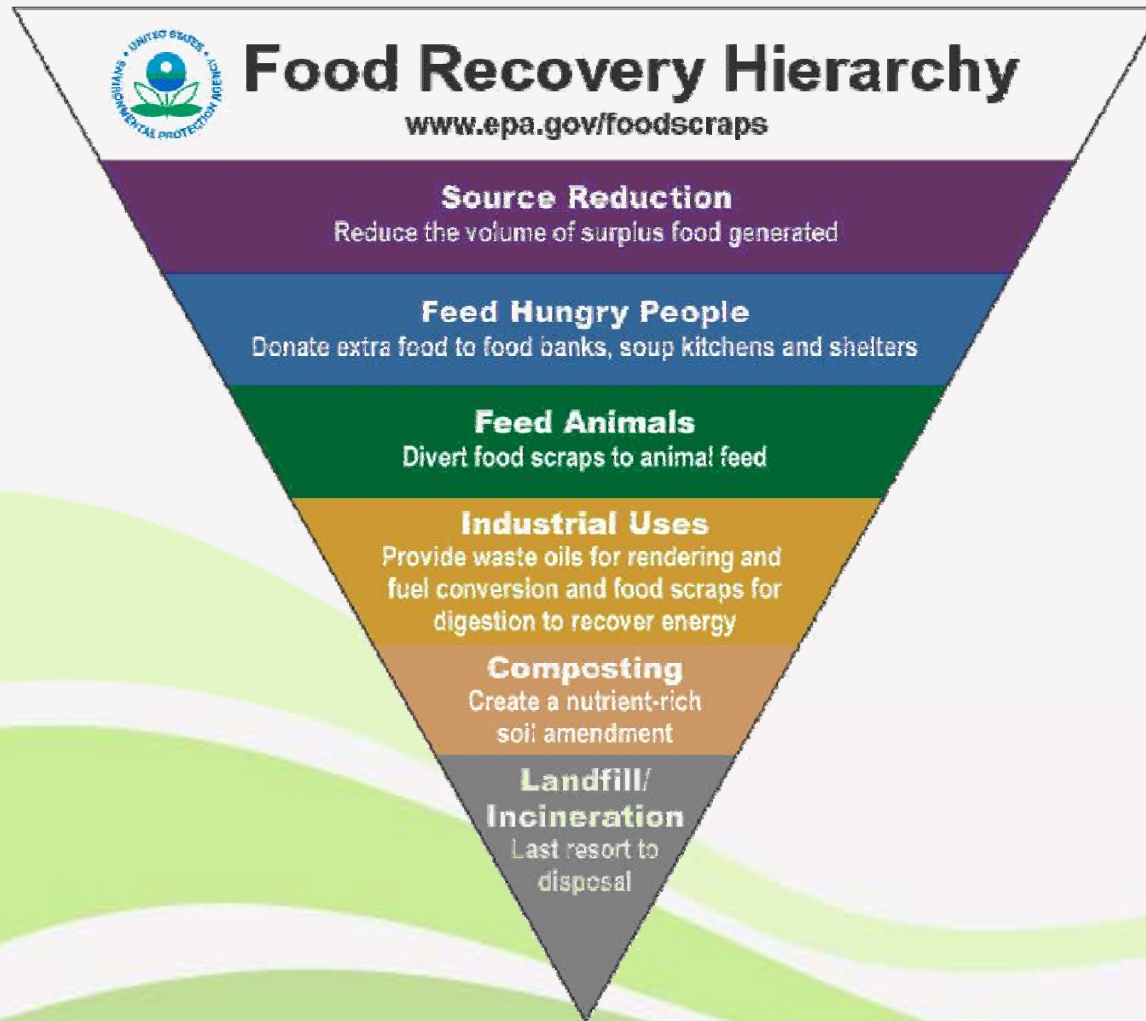
## Key Points:

- Increase recycling goals
- 15 – 20% organics disposal



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# EPA Food Hierarchy – Planning for Recovery



## Food Recovery Hierarchy

[www.epa.gov/foodscraps](http://www.epa.gov/foodscraps)

### Source Reduction

Reduce the volume of surplus food generated

### Feed Hungry People

Donate extra food to food banks, soup kitchens and shelters

### Feed Animals

Divert food scraps to animal feed

### Industrial Uses

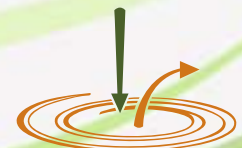
Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy

### Composting

Create a nutrient-rich soil amendment

### Landfill/ Incineration

Last resort to disposal



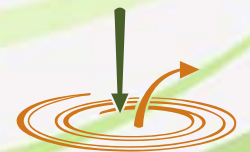
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# Mecklenburg County



- Population 920,000\*
- 7 municipalities
- Largest: Charlotte Metro area
- 14% Diversion rate
- Goal: 35% waste recovery by 2018
  - Strategy 1: Update SW Master Plan
  - Strategy 2: Research food waste impact
- Action: Food Waste Diversion Study

\*2010 Census



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# Commercial Generators

- Commercial sector 143,000 tons/year
  - (35% total tonnage)
- Top Six:
  - Food manufacturing
  - Retail, Restaurants
  - Services
  - Hotels/Lodging
  - Medical/Health
  - Education

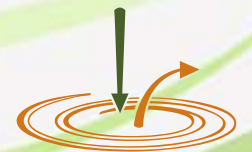


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# Residential Generators

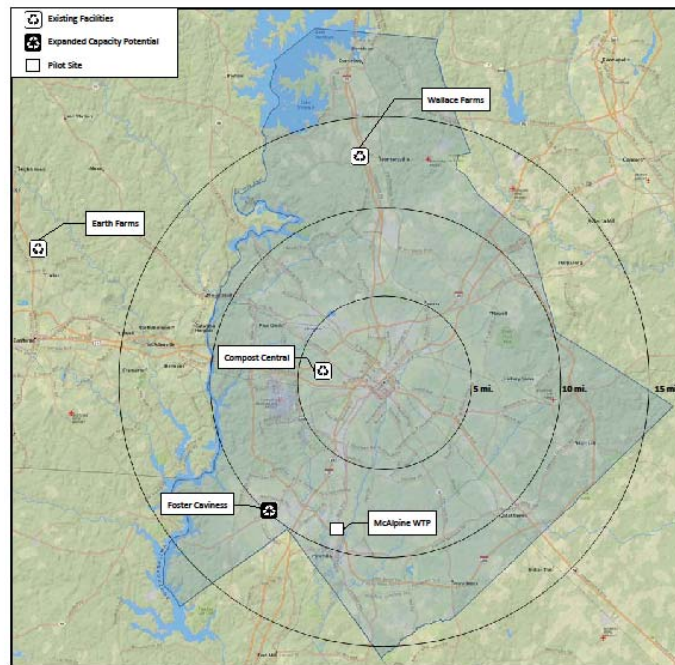


- Residential sector generates 38,900 – 60,100 tons/year
- Home composting recovers 2 – 5%
- Potential to recover additional 36 – 46% residential food waste generated



# Local Processing Capacity

- Currently process >36,000 tons/year
- Unused existing capacity 30,400 tons/year
- Four additional proposed facilities



100 mile  
radius  
facility  
target



# Local Hauling Capacity

- Hauling range: 100 mile radius
- Hauler survey:
  - 50% have interest in providing service
  - Mobilize within 90 days
  - 30% have experience hauling food waste



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# Feasibility Study Results

	<i>Residential &amp; Commercial</i>	
	<i>Low</i>	<i>High</i>
<b>County FW Generation</b>	<b>175,100</b>	<b>210,600</b>
<b>County FW Recovery</b>	<b>11,000</b>	<b>23,300</b>
<b>Current FW Handled by Recovery Facilities</b>	<b>40,700</b>	
<b>Recovery Facility Capacity Used for Non-County FW</b>	<b>29,700</b>	<b>17,400</b>

Note: numbers rounded to nearest 100.  
FW = food waste.

	<i>Residential &amp; Commercial</i>	
	<i>Low</i>	<i>High</i>
<b>County FW Generation</b>	<b>175,100</b>	<b>210,600</b>
<b>County FW Recovery</b>	<b>20,600</b>	<b>32,500</b>
<b>Total Permitted Capacity at Existing Recovery Facilities</b>	<b>71,100</b>	
<b>Surplus Capacity for Non-County FW</b>	<b>50,500</b>	<b>38,600</b>

Note: County program limited to Top 300 establishments in major generating sectors.

Note: numbers rounded to nearest 100.

	<i>Residential &amp; Commercial</i>	
	<i>Low</i>	<i>High</i>
<b>County FW Generation</b>	175,100	210,600
<b>County FW Recovery</b>	54,800	89,100
<b>Total Permitted Capacity at Existing Recovery Facilities</b>	71,100	
<b>Surplus Capacity for Non-County FW</b>	16,300	<b>18,000</b>

Note: comprehensive residential and commercial program.

Note: numbers rounded to nearest 100.



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# Charleston County?



- Population 350,209\*
- 25% diversion rate
- 40% recycling goal
- Objectives:
  - Strategy #1: Compost yard waste
  - Strategy #2: Target food waste
  - Strategy #3: Regulatory requirement

- Action:

Implement a commercial food waste program

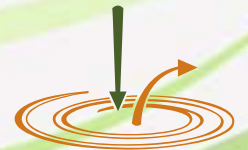
\*U.S. Census Estimate 2010



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# Charleston County, SC

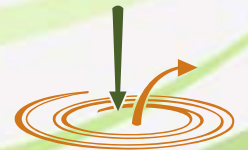
- Only award-winning permitted food waste compost facility in state
- 60,000 tons/year finished compost
- Plastic bag ban at the landfill 11/1/11



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# Commercial/Institutional Program

- Full scale approval June 2011
- Balancing the Fees
  - MSW Tip Fee: \$ 66/ton
  - FW Tip Fee: \$25/ton
- County technical support
  - Waste Assessments
  - Business and Hauler Training
  - Business and Hauler Toolkits



# Commercial/Institutional Outreach Plan

- Program Pilot Action
- Revised Program Materials
  - Target Hauler List
  - Education Materials
  - Program Advertisements
  - [Website](#) (hyperlink)
- Created New Outreach Tools
  - Radio Advertisement
  - Program Success Tracker

CHARLESTON COUNTY ENVIRONMENTAL MANAGEMENT  
RECYCLE.CHARLESTONCOUNTY.ORG (843) 720-7111

## Food Waste Composting



**Commercial Program**  
Participating businesses place their food and other acceptable waste in special marked collection containers located throughout the kitchen and food prep areas.

**Food Waste Haulers** collect your diverted organic waste, and the waste is taken to the County's facility where it is turned into compost.

**What is acceptable food waste?**

- Cooked meats and fish, including shells and bones
- Egg and dairy products
- Food preparation scraps and plate scrapings
- Fruits and vegetables
- Breads, dough, bakery items, pasta and grains
- Coffee grounds, coffee filters and tea bags
- Consumable liquids
- Wooden skewers and cocktail sticks
- Food-soiled paper, for example:
  - Kitchen paper towels
  - Paper napkins
  - Waxed cardboard and paper bags

**Where do I obtain compost for my business?**  
Compost is for sale at the Bees Ferry Compost Facility. Currently, the cost is \$2.00/bag and \$10/ton loose.





**Restaurant Waste**  
A single restaurant discards more than 50 tons of organic waste every year. This material is out of the waste stream and recycled into an eco-product, such as compost.

**Why Participate?**  
Reduce your business's costs  
Advertise your green credentials  
Recycling Food Waste is your business's impact environment

**Who Collects Food Waste?**  
Charleston County does food waste but has the food waste collection program.

Carolina Waste Services  
Scott Fennell, (843) 576-1111  
[www.carolinawaste.com](http://www.carolinawaste.com)

Fennell Container Company  
David Bevaqua, (843) 555-1111  
[www.fennellcontainer.com](http://www.fennellcontainer.com)

Fisher Recycling  
Chris Fisher, (843) 554-6000  
[www.fisherrecycling.com](http://www.fisherrecycling.com)

Wayne Kocak, (843) 259-1111  
[www.waynekocak.com](http://www.waynekocak.com)

Nature's Calling  
Bria Parker, (843) 529-1111  
[www.naturescalling.com](http://www.naturescalling.com)

Southern Sustainable Revo  
(801)  
Michael Pectol, (843) 259-1111  
[www.southernrevo.com](http://www.southernrevo.com)

**RECYCLE FOOD WASTE.**  
**RESTAURANTS | GROCERS**  
RECYCLING FOOD WASTE IS EASY AND CAN SAVE YOUR BUSINESS MONEY.

**TO GET STARTED**

1. CONTACT CHARLESTON COUNTY FOR A "FREE" WASTE ASSESSMENT AND TO LEARN MORE ABOUT OUR AWARD-WINNING, PERMITTED COMPOSTING FACILITY & PROGRAM.
2. OBTAIN A LIST OF LOCAL FOOD WASTE HAULERS FOR SERVICE OPTIONS AND FEES.

CALL (843) 720-7111




CHARLESTON COUNTY  
YOUTH • CAREERS • VALUES

Home | Employment | Elected Officials | Area Contacts | FAQs | Site Map | Links | Contact Us | Request Info (FOIA)

40% of food goes uneaten  
compost your commercial food waste

**Commercial Food Waste Composting Program**

Charleston County Government's Commercial Food Waste Composting Program gives local businesses the opportunity to reduce their overall disposal costs and impact on the environment by contracting for collection and negotiating fees with collectors (haulers or trucks) to divert this material from the waste stream to Charleston County's Bees Ferry Compost Facility.

Your business can reduce the user fee charged by the County's Revenue Collections Department by participating in the County's Food Waste Composting Program. Revenue Collections currently charges businesses \$172 per cubic yard of garbage service.

For example, an 8 cubic yard garbage dumpster serviced once per week has a user fee charge of \$1,376 per year. Reducing the size of the container by taking advantage of Charleston County's recycling and Food Waste Composting programs could reduce the amount of your business's user fee bill. Reducing the dumpster by 2 cubic yards to a 6 cubic yard dumpster and by diverting recyclables and food waste could save a business \$344 in yearly user fee charges (less any food waste collection costs).

Food waste recycling is not only good for the environment - it's also good for your business's bottom line.

s\_County\_Recycling\_-\_12102012\_Food\_Waste\_Compost...

**ACCEPTABLE FOOD WASTE MATERIALS**

- All fruits
- All vegetables
- Bread, dough, bakery items, pastries and grains
- Coffee grounds and tea with filter
- Dairy products (milk, cheese, yogurt)
- Processed foods (pizza, cereal, chips, crackers, cookies, cakes, deli meat, plate scrapings)
- Eggs and egg shells
- Consumable liquids
- Cooked meats and fish, including shells and bones, wooden skewers and wooden cocktail sticks
- Food soiled paper, paper bags, paper towels, and paper napkins and waxed cardboard boxes

**ITEMS NOT ACCEPTED**

- No raw meat products (beef, poultry, pork, seafood)
- No plastic bags, serve ware, utensils, twist ties, rubber bands
- No fats, oils, grease or non-consumable liquids (vegetable oil or lard)
- No wood, metal, glass or other non-food items

**40%**  
of FOOD goes uneaten.

**RESTAURANTS | GROCERS**  
**RECYCLE FOOD WASTE**  
Recycling Food Waste is Easy and Can Save Your Business Money.

**To Get Started Contact Charleston County:**

1. For A "Free" Waste Assessment.
2. To learn more about the award-winning and permitted compost facility and program.
3. Who's collecting food waste and learn about service options and fees they charge.

CALL (843) 720-7111

RECYCLE.CHARLESTONCOUNTY.ORG

farm table compost



RECYCLE.CHARLESTONCOUNTY.ORG

farm table compost

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# C/I Pilot Results

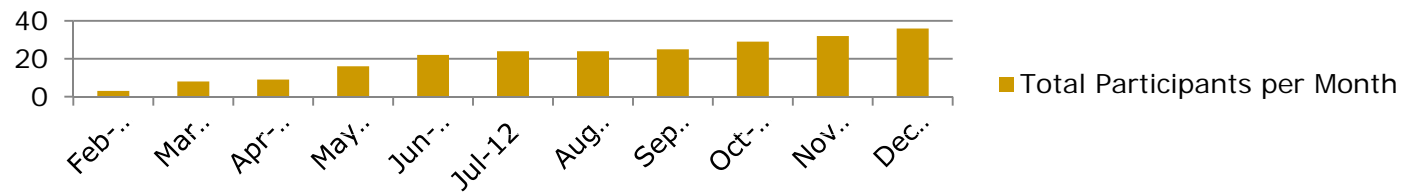
## Website Results:

Organics / Food Waste Page "hits/visits" had a 72.5% change increase due to the media blitz performed in the month of Dec.

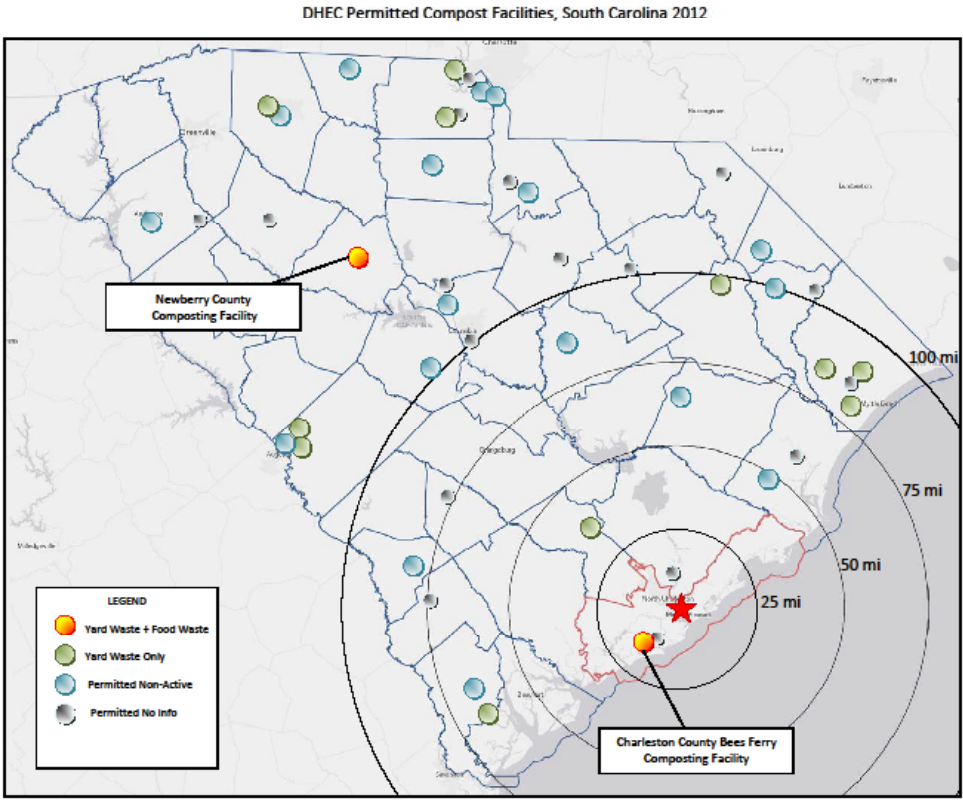
## Pilot Projects Goals & Results

Action Statement	Pilot Goals	Pilot Results as of 12/31/12
Increase food waste tonnage	25 tons/week	average of 67 tons/week
Increase Business Participation	5/week	36/week
Increase hauler participation	by one additional hauler	2 Haulers Added (Viridian & Fisher Recycling)

## Total Business Participants per Month

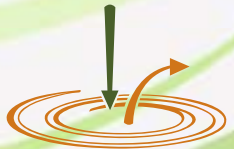


# Marketing Compost Facilities in SC



100 mile  
radius  
facility  
target

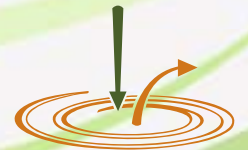
P:\Charleston\Gen Svcs\WRRRC\Compost\Competitors





# Florida's Transition to Compost YW & FW

- FORA – Mulching State
- RFT – DOT Programs
- FORCE – [www.floridaforce.org](http://www.floridaforce.org)
- Regulatory reform
- 75% recycling goal
- Corporate sustainability programs
- Hauler response to expanded services



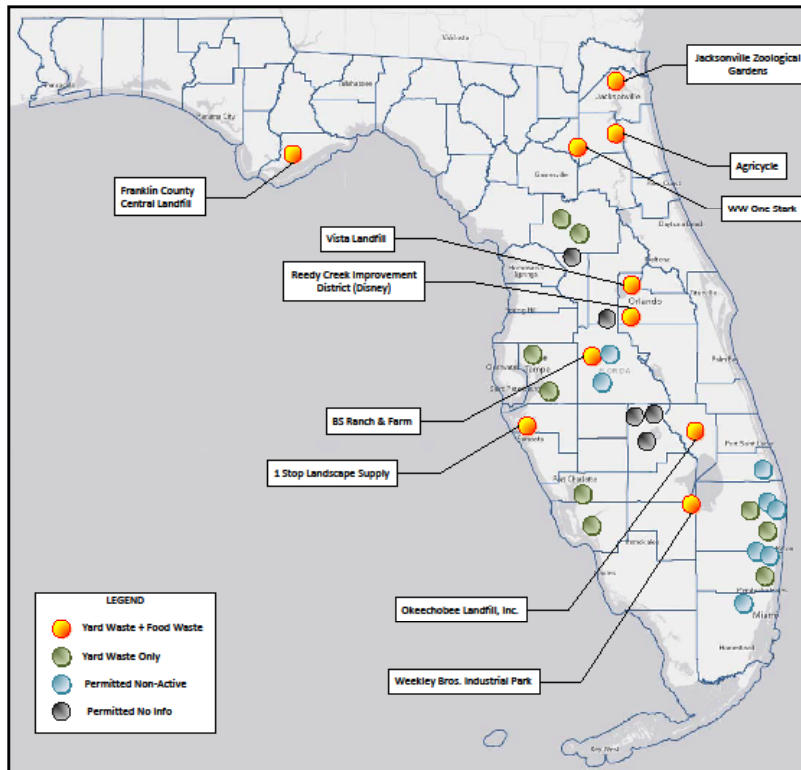
# Registration vs. Permitting

- FORCE 2006 Florida Composting Regulatory Report
- From permit to registration
  - Allowed yard waste AND food waste
    - Source-separated vegetative materials
    - Source separated animal by-products
    - Manure
    - Yard trash
  - Reduced costs due to avoiding permit process
  - Shortened approval time to operate

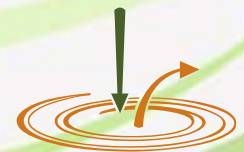


# Composting Facilities in Florida

FLDEP Permitted Composting Facilities, Florida 2012



100 mile  
radius  
facility  
target



# Processing Capacity Growth

- Processing growth supports hauler service expansion
- Waste Management Opens two facilities in Florida
  - Apopka: 45,000 tons half capacity
  - Okeechobee: 30,000 tons nearing capacity



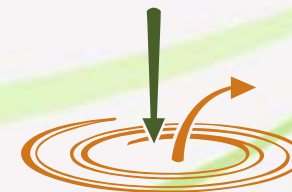
# The Future of FW Composting in the South East

- Public vs. private facilities
- Private -public partnerships
- Benchmarking/Feasibility
- Expanding business diversion program options
- Develop education for business generators
- Linking collection to generators and organics facilities
- Meeting higher goals



# Contact Information

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